



earth-wise guide to



Caterpillars

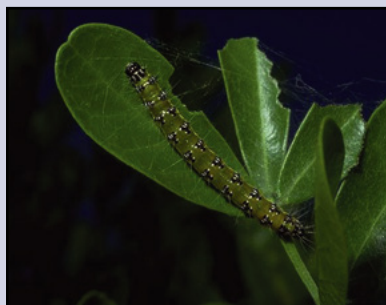
pest caterpillars



Tomato Horn Worm



Tent Caterpillar



Genista



Spring Cankerworm

Least Toxic Solutions

- Monitor infestations of very young caterpillars to see if natural controls like predators, parasitic wasps or harsh weather will eliminate infestation
- Do not treat native trees; infestations are natural and rarely threaten tree health unless tree is stressed or weakened
- For butterfly gardening enthusiasts, expect some caterpillar damage – caterpillars are the larval stage of butterflies (see photos below)
- Egg masses and groups of caterpillars found on trees or branches can be removed by hand or pruned out of the tree and destroyed
- Dislodge young (small) tent caterpillars with high-pressure water sprays or open web with a broom to allow parasitic wasps easier access
- Release parasitic wasps when caterpillars first appear
- Use row covers - they are an effective barrier in vegetable gardens
- Encourage wasp and fly parasites which often attack caterpillars (see Beneficial Insects fact sheet or for details visit www.growgreen.org)
- Treat young caterpillars with a product containing *Bacillus thuringiensis* (B.t.), but do not use near butterfly gardens
- Hand-pick caterpillars from plants and drop in a bucket of soapy water

Caterpillars can be found year round but are most prevalent in spring and fall; some types are specific to a season while others complete more than one life cycle per year

If You Must Use a Pesticide...

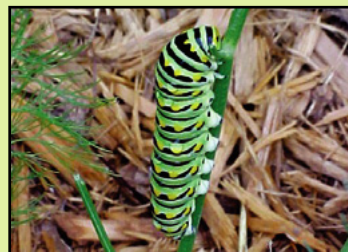
- Avoid applying broad spectrum pesticides - they destroy beneficial insects as well as pests and leave trees or shrubs unprotected if pests return
- Apply only to plants specified on the label - some formulations injure tender ornamental plants and new growth
- Mix according to directions and apply only recommended dosage
- Avoid systemic pesticides on vegetables and edible plants. Systemic pesticides are taken up by the plant and make its tissues and fluids toxic to feeding caterpillars
- Non-systemic pesticides must be applied to all infested plant surfaces for best results, because they must come into direct contact with the insects
- Avoid overuse of chemicals - many pests have become resistant to certain pesticides

identify before you buy
Need help diagnosing a plant problem? Call the Texas AgriLife Extension Service at 512-854-9600 and ask for the Master Gardener desk or email them at travismg@ag.tamu.edu

butterfly larva:



Monarch



Swallowtail



Gulf Fritillary

product toxicity comparisons

Evaluation of active ingredients only; does not include toxicity information on inert or "other" ingredients.

Toxicity/Threat:

○ low ◐ low to moderate ◑ high ● highest NA not applicable
 ? unknown toxicity ☠ banned by EPA 🌍 earth-wise

Hazards:



note	Product Name	active ingredient(s) / concentrations	human toxicity		aquatic life	birds, bees, pets	soil mobility	environmental persistence
			acute	chronic				
☠	American Brand® Thuricide Concentrate	<i>Bacillus thuringiensis, var kurstaki</i> 1.5%	◐	○	◐	◐	○	○
☠	Green Light® Dipel Dust	<i>Bacillus thuringiensis, var kurstaki</i> 0.45%	◐	○	◐	◐	○	○
☠	Fertilome® Borer Bagworm, Leafminer & Tent Caterpillar Spray	Spinosad 0.5%	◐	?	◑	◑	○	◐
	Bonide® Garden Dust	Copper 7% Rotenone 0.75% Other cube resins 1.5%	◐	○	◑	◑	◑	○
	Spectracide® Grub Stop™ Once & Done!™	Halofenozide 1.5%	◐	?	●	◐	○	◐
	Green Light® Neem II Ready-to-Use	Pyrethrin 0.02% Piperonyl butoxide 0.20% Clarified hydrophobic extract of neem Oil	◐	●	◐	◑	◐	◐
	Ortho® Bug-B-Gon® Max® Season Long Insect Killer for Lawns	Bifenthrin 0.115%	◐	?	●	◑	○	◐
	Bayer Advanced™ PowerForce® Multi-Insect Killer Concentrate	Cyfluthrin 0.75%	◐	?	●	◑	○	◐
	Concern® Multi-Purpose Insect Killer	Pyrethrins 0.24%, Potassium salt of fatty acid 20%	◐	●	◑	◑	○	○
	Bayer Advanced™ Complete Insect Dust Ready-to-Use	Permethrin 0.25%	◐	◑	●	◑	○	◐/○
	Bayer Advanced™ Complete Insect Killer for Soil & Turf Ready-to-Spread Granules	Imidacloprid 0.72% beta-cyfluthrin 0.36%	◐	?	●	◑	◑	◐
	GardenTech® Sevin® Lawn Insect Granules	Carbaryl 2%	◐	◑	●	●	◑	◐
	Eliminator® Sevin® 5% Dust	Carbaryl 2%	◐	◑	●	●	◑	◐
	Ortho® Volck® Oil Spray	Mineral oil Petroleum oil 97%	◐	?	●	●	?	?

www.growgreen.org

The City of Austin and the Texas AgriLife Extension Service provide this information as a comparative reference only. Listing of specific product trade names does not constitute endorsement of its use. Many other pesticides and pesticide products are available and may be suitable for use other than those listed in these tables. **Check labels carefully as trade names and active ingredients may change.**

Products rated by Grady J. Glenn, Ph.D., B.C.E., of the Pesticide Safety Education Program, Texas AgriLife Extension Service. The rating system was developed by Philip Dickey of the Washington Toxics Coalition.

why grow green?

The Grow Green program is based on Integrated Pest Management (IPM) principles that encourage the LEAST TOXIC approach to pesticide and fertilizer use. The goal is to reduce the amount of landscape chemicals that degrade water quality when they run off into waterways or leach into our groundwater.

Grow Green is a partnership between the City of Austin Watershed Protection Department and Texas AgriLife Extension Service. Call 512-974-2550 or 512-854-9600 for more information or visit our website at www.growgreen.org.

